State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES
6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
(603) 271-3406 FAX (603) 271-7894

April 11, 2002
Letter of Deficiency
DAM #090.01

Ralph Scribner
60 Glidden Road
Gilford, NH 03246

RE: West Alton Brook I Dam, Gilford

Dear Mr. Scibner:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that plays a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on March 4, 2002. During this visual inspection and/or file review, the following items were observed:

1 The stoplogs are installed to the top of the dam with no freeboard remaining;

2. There is severe downstream embankment erosion due to both overtopping of the dam as well as from leakage around the abutments;

3 There is sediment on the upstream face of the dam and stoplogs approximately 2 feet below the dam crest. There is substantial leakage through the stoplogs;

4. There is severe concrete deterioration located at the downstream end of the stoplog bay discharge channel just below the center stoplog support;

5. The right hand side discharge channel concrete wall has failed and is partially toppled;

6. There is severe leakage around and through the portion of the dam to the left of the stoplog bay. Severe soil erosion has occurred on the downstream face from the stoplog bay approximately 20 feet to the left;

7. There is severe leakage around and through the portion of the dam to the right of the stoplog bay. Severe soil erosion has occurred on the downstream face from the stoplog bay approximately 40 feet to the right;

8. There is tree and brush growth located in the discharge channel and within 10 feet of the toe of the dam;

9. There are several diagonal cracks approximately ¼ inch wide on the downstream face of the dam located to the right of the stoplog bay;

10. Photos taken in 1997 indicated that the concrete upstream face to the right of the stoplog bay was severely cracked and deteriorated. These photos also indicated that the upstream face of the dam to the left of the stoplog bay had failed leaving only the downstream concrete cap to retain water;

11. It is not clear if the dam owner owns the private gravel road located approximately 80 feet downstream from the dam;

12. There are no design or as-built plans on file with the NHDES; and

13. There is no operations and maintenance plan on file with the DES.

DES recommends draining the pond and maintaining it in that state until the below listed items are addressed:

Immediately:

1. Removing the stoplogs from the stoplog bay and operate the dam in this manner to provide a minimum of 1 foot of freeboard during the design event. According to the hydrologic/hydraulic analysis, a maximum of 9.5 inches of stoplogs can be installed and still meet the 1 foot freeboard requirement for the design event. If the owner wishes to maintain the pond higher than 9.5 inches above the concrete spillway crest, additional work will be required;

Before re-filling pond:

2. Repair the soil erosion on the downstream face of the dam to the left and right of the stoplog bay;

3. Remove the sediment on the upstream face of the dam and stoplogs;

4. Repair the deteriorated concrete located at the downstream end of stoplog bay discharge channel just below the center stoplog support;

5 Repair the failed concrete wall located on the right hand side of the discharge channel;

6. Investigate and repair the source of the severe leakage located to the left and right side of the stoplog bay;

7. Remove the tree and brush growth from all areas on the dam crest, in the discharge channel, and from within 10 feet of the toe of the dam;

8. Repair the entire upstream face of the dam. Plans and specifications should be submitted prior to construction detailing how and what repair activities will be conducted;

9. Repair the diagonal cracks approximately ¼ wide on the downstream face of the dam located to the right of the stoplog bay; and

10. Prepare and submit to the DES a written operational procedure plan. The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,

COPY

Jeffrey M. Blaney
Dam Safety Engineer

Attachments Guideline for an O&M plan, DB8, DB13
cc: Gretchen Rule
Town of Gilford
Certified # 7099 3400 0002 9772 9691
JMB/was/h:/safety/wendy/lod/090-01lod.doc